



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/036,401

01/07/2002

Mathias Bischoff

4001-1003

3605

466

7590

02/07/2006

YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

CURS, NATHAN M

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,401	Applicant(s) BISCHOFF ET AL.	
	Examiner Nathan Curs	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,6-10,14 and 17 is/are allowed.
- 6) ☒ Claim(s) 3,11,12,15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the fourth network node device (2)" as well as "the second network node device (2)". The values in the parentheses serve to confuse the limitation, since the value 2 is associated with the fourth and device and the value 6 is associated with the second device, respectively, in claim 1. The claim was examined below assuming the limitation in claim 3 was intended to be "the second network node device (6)" as originally claimed.

Regarding both claims 15 and 16, the phrase "designed and established" is vague and unclear, and the phrase "it can be used" is indefinite. All limitations must be positively identified.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nederlof (US Patent No. 5590118) in view of Viterbi ("Approximate Analysis of Time-

Synchronous Packet Networks"; Viterbi, A.; Selected Areas in Communications, IEEE Journal on; Vol 4, Issue 6, Sep 1986, Pages: 879-890).

Regarding claims 11 and 12, Nederlof discloses an optical communication network and method (col. 8, lines 56-63) in which optical signals are exchanged via a first data link between a first network node device and a second network node device with interposition of a number of further interconnected network node devices (fig. 1, e.g. element SN4 communicating to element SN8 through elements SN6), characterized in that, after a disturbance on the first data link (col. 19, lines 41-43, failure of SN6), a third network node device (fig. 1, element SN5) sends a signaling signal to a fourth network node device connected to the third network node device for potentially setting up a second data link which would be at least partially a standby for the first data link (fig. 1, element SN7 and col. 19, lines 57-64, where the request message sent by SN5 to SN7 – as well as the request message sent by SN8 to SN7 – is for setting up a second data link bypassing SN6). Nederlof discloses that the signaling signal is sent with a hop count limitation (col. 10, lines 50-59), but does not disclose that the fourth network node device determines whether it is responsible for setting up the second data link or not on the basis of a Bernoulli experiment, taking into consideration the number of links connected to the fourth network node device and the distance between the fourth network node device and a further network node device, particularly the first and/or second network node device. Viterbi discloses a Bernoulli experiment for a node of an arbitrary network topology, where packets are routed along the path of minimum hop count, for evaluating distributed processing and performance of the network as viewed from the fourth node; and the experiment considers the links connected to the node and the distance (hop count) between the node and other nodes (page 879, Abstract and Section 1, lines 1-8 and page 887, section D line 1 to page 888, section Conclusion, line 11, including Table 8 and fig. 9). It would have been obvious to one of ordinary

Art Unit: 2633

skill in the art at the time of the invention for the fourth node of Nederlof to evaluate the network using the Bernoulli experiment taught by Viterbi before setting up a second data link, to provide the advantage of setting up the most efficient second data link when considering performance of the rest of the network as viewed from the fourth node.

Allowable Subject Matter

5. Claims 1, 2, 6-10 and 14 and 17 are allowed. Claims 3, 15 and 16 would be allowable if the 112nd paragraph problems were fixed.

Response to Arguments

6. Applicant's arguments regarding claim 11 have been fully considered but they are not persuasive.


The applicant argues Viterbi does not teach applying "a packet based routing algorithm" for "a connection based rerouting procedure". The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, Nederlof teaches that the rerouting procedure signaling is sent with a hop count limitation and Viterbi teaches a node determining the path of minimum hop count for routing of packets along a path (where a "path" is a connection-based route). Further, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

Conclusion

7. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (571) 272-3028. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (800) 786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600